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HOW CAN AN INDIVIDUAL'S GROWTH MINDSET BE IMPROVED BY USING
SELF-ASSESSMENT TECHNIQUES?

by

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A capstone submitted in partial fulfillment of the
requirements for the degree of Masters of Literacy Education

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Saint Paul, Minnesota

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To all of my incredible third grade students—past, present and future. I am fortunate to have such an inspiring group of students every school year, willing to challenge me to be the best teacher I can be. Thank you for your patience and showing me that weakness is not a flaw, rather a learning experience; and that persevering through rough waters brings the best end results. Every year, I am faced with what seems a daunting challenge but still I continue to be excited to meet a new group of students and embrace all that they bring to the classroom. Each opportunity challenges my own growth mindset and helps me grow as an individual and professional. Students, thank you for allowing me to be a work in progress while I strive to inspire you to reach your fullest potential.

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CHAPTER ONE

“No matter what your ability is, effort is what ignites that ability and turns it into accomplishment.”

- Carol Dweck

Introduction

The number of standards that need to be mastered and assessments that need to be passed continue to increase yearly for elementary students. A teacher’s responsibility is anything but minimal. Teachers hold the future of society in their hands, sometimes with limited resources and support. In order for students to be successful, teachers need to equip their students with strategies and tools that will help them maneuver through any obstacle. The importance of moving from the fixed mindset to the growth mindset approach in present day classrooms is becoming more crucial. Students need to understand that being intelligent is not a fixed trait; it is something that is earned through hard work and perseverance.

Teaching third grade students “skills like perseverance, curiosity, conscientiousness, optimism, and self-control” (Tough, 2013) is far from an easy task. In order for students to comprehend the idea of a growth mindset, I need to provide constructive feedback and opportunities for students to be reflective on their own learning. Using phrases like “What am I missing?” and “I will learn how to do this” allows students to transform their own thinking, grow through hard work, and become

independent learners. I want to be a teacher who creates a classroom environment where every student feels safe enough to make mistakes and grow into their own learning.

I am driven to be a distinguished teacher, which leads me to my research question – *How can an individual's growth mindset be improved by using self-assessment techniques?* Throughout this chapter, I will discuss my statements of significance, context for understanding, and my rationale for my capstone topic.

Definitions

Before going into my statements of significance, I would like to present two key definitions that are going to show up through this capstone: fixed mindset and growth mindset. “In a fixed mindset, people believe their basic qualities, like their intelligence or talent, are simply fixed traits” (Dweck, 2013). Individuals with a fixed mindset believe that there is no way to increase their intelligence or talent levels. They are what they are and nothing can change that. On the other hand, “in a growth mindset, people believe that their most basic abilities can be developed through dedication and hard work – brains and talent are just the starting point” (Dweck, 2013). Individuals living with a growth mindset are driven by challenges and learn from making mistakes.

Statements of Significance

My experiences at Marquette University sparked my passion for teaching in diverse and underprivileged neighborhoods. I became familiar with many culturally diverse classrooms and more aware that regardless of a child's background, educational level, or life circumstances, every child is a unique individual who possesses inherent value and potential. I wanted to be the encouragement that every student needs to

succeed. I wanted to show them that no matter where they come from, they always have the opportunity for a better future. I quickly realized that if I wanted to reach my students in Milwaukee, I needed to develop an influential and positive relationship with each student in my classroom. This relationship was built on the foundation of high expectations tied together with care and support along the way.

Once I left Milwaukee, I moved back to Minnesota and worked in a low-income community school. It was now my turn to be the head teacher of twenty influential students and I brought everything with me that I learned through my experiences in Milwaukee. My students had a fixed mindset; they were used to receiving praise for easy success and were afraid of challenges and taking risks (Masters, 2014). My students did not have the self-esteem, or the guidance, to understand that despite their current academic levels, every individual is capable of achieving a higher level. My passion continued to flourish and now I was motivated, more than ever, to spend every school year creating well-rounded students – academically and socially. I was determined to instill the growth mindset into each and every one of these students' work ethic.

To grow as a teacher, I joined a book group and we read *Mindset – The Psychology of Success* by Carol Dweck. I was amazed at how much I learned from this one book and how applicable it was to my everyday teaching. I realized that I needed to begin to motivate my students to become active and independent learners. It was time to stop guiding my students every step of the way, and help them develop a self-view as a student. No matter their current academic levels, it was time to foster the idea that “I can and will be successful with hard work and perseverance.” To my surprise, the growth

mindset approach was a huge success. My classroom made major growth in one academic year and continued to use the tools they learned in my classroom for their following years. I am intrigued by the idea of growth mindset because it equips individuals to be a life long learner.

My next teaching adventure took me to the West Side of Chicago to work at an underprivileged charter school. The biggest concern was managing student behavior in order to still be academically successful, which led me to dissecting the Danielson Framework for Teaching Component 2 – The Classroom Environment. Through the months of defiant student behavior, I challenged my own growth mindset because I needed to persevere and realize that there is always going to be a light at the end of the tunnel. I kept thinking to myself, “some of strategies and techniques will work. I will gain my students’ respect and trust.” The process took many hours of my own self-reflection and troubleshooting meetings with colleagues, but as the New Year came around, I began to make headway. I was now able to focus on fostering the growth mindset in my current students.

The process of instilling a growth mindset in my students is not an easy task. Third graders are not always mature enough to understand what they know and do not know. Students need to be guided in the process of self-reflection, meaning a student with the growth mindset should be able to ask “what strategy or tool will help me be successful?” once hitting a roadblock. My students in Chicago are not as open to the growth mindset approach. They are quick to give up on something that is too rigorous or challenging. If they do not understand something, they say, “I don’t get it” rather than

trying. For this reason, I am eager to research the relationship between growth mindset and self-assessment techniques so my students are given the tools to work hard and persevere through challenging content and situations.

Context for Understanding

Charter schools are not favored in the Chicago Public Schools because we receive funding from Chicago Public Schools, as well as, Charter School Growth Fund. As a teacher of a charter school, my success is measured by the standards of the Chicago Public Schools. Rather than concentrating on the well being of the whole child, I am focused on doing well on high stakes testing – PARCC and MAP – in order to stay open another year. Through these assessments, I am going against the idea of growth mindset and teaching my students to be a player in the game of how individuals are assessed in this world. I am also going against the NWEA’s purpose for these standardized tests – which sees standardized tests as formative and not summative. Charter Schools and Chicago Public Schools are only mainly using these tests as summative assessments. When it comes to the standardized tests, I am held accountable for my students’ academic success by two sources: my school and an outside district. In order to be considered a successful teacher, I need to show that I am a productive teacher and my students are able to produce proficient scores on grade-level standardized tests, in one academic year. I am responsible for teaching my students to be self-aware of their learning and showing their own skills in a quantitative way. If done correctly, the Chicago Public Schools sees our students as proficient, the teachers as productive, and keeps the school open another year.

My school, LEARN 7, decided that the best way to be seen as productive teachers in the Chicago Public Schools and have the ability to meet the needs of the diverse student population is to follow the Charlotte Danielson Framework for Teaching. The idea of students using self-assessment to evaluate individual's own learning and fostering growth mindset in the classroom came within the last two years for my school, before I even was an employee. My school is pushing towards the Charlotte Danielson's Framework for Teaching as an evaluation tool for teachers. Through this evaluation, we are labeled as an unsatisfactory, basic, proficient, or distinguished teacher. In order to be fully knowledgeable in this area, my school's network has provided different professional development experiences to dive in and truly understand what is expected from a distinguished teacher. The end goal being that I am forming habits of a distinguished teacher and seeing my students through another lens, rather than being a test score to the Chicago Public Schools. This idea in mind, all students will become reflective on their successes and failures, in order take ownership in their own learning through the self-assessment process.

One final stakeholder that is pushing my research question, *how can an individual's growth mindset be improved by using self-assessment techniques*, is the community where my school is located and students live. The students that walk through LEARN 7's school doors do not typically come from stable backgrounds where education and college are valued. LEARN 7's student population is 99% free and reduced lunch program and 99% African American students. My first concern when each individual student walks through the door in the morning is whether the child slept the night before

and if the child had a meal since leaving school. These students are considered high-risk, both behaviorally and emotionally. Many have experienced loss of a parent, sibling, or close relative due to death or incarceration. Very few have a support system at home. These students come from a background that drives them directly into the fixed mindset. All odds are against them succeeding in life.

For these children, the stakes are high when it comes to academics and their lives. If approached correctly, academics can become an outlet from the despair for these children. Instilling a growth mindset provides many opportunities for these students that they never before knew existed. Teaching these children to be successful on a standardized test is one concern out of the many that comes along with teaching a high-risk student population. My teaching can no longer be teaching to the test, but using the growth mindset approach to transform these students into lifelong learners. At my school, being a distinguished teacher is no longer defined as teaching to the standardized test and producing proficient scores. A distinguished teacher means that I need to shift my students and the surrounding community towards a growth mindset so they are able to function in society on many different levels.

Rationale

The significance of my question, *how can an individual's growth mindset be improved by using self-assessment techniques*, comes from the need to provide my students with successful learning experiences that build confidence to overcome any obstacle – whether it is related to academics or surviving in the real world. It is important for me to focus on the growth mindset in relation to Danielson's Framework for

Teaching. These two resources will allow me to foster, not only a safe and nurturing learning environment, but also create a classroom where my students challenge themselves and their classmates academically and intellectually. In order for my students to become lifelong learners, it is key to instill in their minds that becoming intelligent is a process that requires hard work, enthusiasm, persistence, and the growth mindset.

This process is important to me, as well as my colleagues, as we are held accountable to follow the Charlotte Danielson Framework for Teaching at our school. In order to be considered a “distinguished” teacher, I need to create a nurturing learning environment where students are capable of assessing their own learning, giving/receiving constructive feedback, and monitoring their own success.

Conclusion

Through studying the question, *how can an individual's growth mindset be improved by using self-assessment techniques*, I will be able to assist my students in being actively engaged in their learning and capable of self-assessing their own learning in order to make academic improvements towards success. Through this capstone, I hope to move away from assessing students based on what they are already capable of and form assessments that are both challenging and intriguing to truly gauge student's learning abilities. In order for this process to be successful, I need to foster the growth mindset approach in my classroom for students to take ownership of their own learning. These self-assessment techniques will allow students to make academic improvements by recognizing their own misconceptions and using perseverance to overcome these

misconceptions. The ultimate goal is to increase student engagement and lifelong learners.

In Chapter Two, I will review the literature focused on growth mindset and self-assessment, in relation to Carol Dweck's idea of mindset and Charlotte Danielson's Framework for Teaching.

CHAPTER TWO

Literature Review

Overview

As I think about my research question *How can an individual's growth mindset be improved by using self-assessment techniques?*, my capstone journey provides me the opportunity to dissect the Danielson Framework for Teaching and how it provides teachers with the appropriate strategies to instill the growth mindset in students. This journey will present self-assessment techniques that are crucial for teachers to understand and utilize throughout instruction in order to increase student engagement and develop lifelong learners inside and outside of the classroom.

My school's network strives to provide an education that creates a life-long learner out of every student. Fostering the growth mindset in each individual student motivates me, as an educator, to have stronger instructional techniques and strategies that creates independent learners. This motivation has led me to be a strong believer in the Charlotte Danielson Framework for Teaching. Teachers are held accountable to follow and flawlessly implement the Charlotte Danielson Framework for Teaching during instruction to be evaluated as a distinguished teacher. In order to properly use the Danielson Framework for Teaching and create lifelong learners inside of my classroom, I need to foster the growth mindset approach. Every day, I am reminded that the students in my school are faced with countless obstacles that are not in their control – nothing to eat for dinner, no clean clothes to wear, nowhere to sleep. Without the growth mindset, these

students will never have a chance to succeed in an academic setting or in the real world because they are starting off at a disadvantage. The growth mindset will empower them to take steps to move beyond their current circumstance. Without the growth mindset, these students may not believe they have the power to change their life situations. With the growth mindset, these students can be anything that they put their minds to, with hard work and perseverance. My next steps are to provide my colleagues with strategies and techniques that address the domains of the Danielson Framework, while instilling the growth mindset in each student. In this chapter, I will present research literature that focuses on the idea of growth mindset, the implementation of the Danielson Framework for Teaching, and beneficial assessment techniques.

In the first section, I will review Carol Dweck's theory of fixed versus growth mindset and provide reasoning for the necessity of fostering a growth mindset in classrooms. I will address the appropriate use of teacher language and modeling in order to develop a growth mindset among students. In the second section, I will dive into the Danielson Framework for Teaching, specifically Domains Two and Three. I will discuss how creating a classroom environment of respect and rapport leads to a culture of learning, which are critical for fostering growth mindset. Additionally, I go more in depth into Domain 3 about instruction. The key to strong instruction is communicating clearly with students; student engagement, quality feedback, and purposeful assessment. In the third section, I provide instructional strategies and techniques that support students in taking ownership of their own learning.

Mindsets

“Mindsets are just beliefs. They’re powerful beliefs, but they’re just something in your mind, and you can change your mind” (Dweck, 2006, p. 16). An individual’s mindset gears them for how one would tackle a challenge, obstacle, and task. In a fixed mindset, people believe their basic qualities, like their intelligence or talent, are simply fixed traits” (Dweck, 2013). Individuals with a fixed mindset believe that there is no way to increase their intelligence or talent levels. They are what they are and nothing can change that. On the other hand, “in a growth mindset, people believe that their most basic abilities can be developed through dedication and hard work – brains and talent are just the starting point” (Dweck, 2013). Individuals living with a growth mindset are driven by challenges and learn from making mistakes. The first part of this section will provide an overview of the fixed versus growth mindset theories originated by Carol Dweck. The second part will focus on the importance of modeling and teacher language when it comes to promote the growth mindset in individuals and overcome the fixed mindset.

The Impact of the Fixed Mindset: The idea of a fixed mindset comes from the idea that intelligence and talent are things that you are born with, and you cannot change either. Having a fixed mindset hinders the ability to overcome obstacles that an individual may face and leads to the idea of failure rather than a learning opportunity. The idea of failure becomes a detrimental experience that minimizes motivation to complete tasks and achieve success. “Every situation calls for a confirmation of their intelligence, personality, or character. Every situation is evaluated: *Will I succeed or fail? Will I look smart or dumb? Will I be accepted or rejected? Will I feel like a winner or a loser?*” (Dweck, 2006, p. 6). Individuals with the fixed mindset become more concerned

with how their intelligence is going to be perceived by others rather than working towards becoming better at a challenging task. Effort is seen as a weakness to those that have a fixed mindset. If effort is required, an individual does not possess the necessary skills or intelligence to complete a task, leading to inadequacies compared to others.

Those in the fixed mindset have the constant fear of feeling inadequate. They constantly measure themselves based on tests and compare themselves to others. Confidence, motivation, and self-esteem are very low in individuals with the fixed mindset. These individuals would rather make excuses for not succeeding on a task rather than putting forth the effort necessary to achieve success. Once an individual in the fixed mindset fails a task, they label themselves as a failure and lose interest – they are only concerned in participating in tasks that lead to success. For example, Carol Dweck (2006) observed pre-med students taking their first semester of chemistry at Columbia. It was widely known that even the smartest students rarely received higher than a C+ on exams or in the class. The course was challenging. Students with the fixed mindset were used to being the smartest and the top in every class they had been in. These students never received an “average” grade in any class and if they did, they dropped out immediately because failure was not an option. Each of these students was destined to be a doctor since they were young, however, the students in the fixed mindset allowed their first chemistry course to define them. “Those who found it difficult showed a big drop in their interest and enjoyment. If it wasn’t a testimony to their intelligence, they couldn’t enjoy it” (Dweck, 2006, p. 23).

Individuals in the fixed mindset feel intelligent when they are capable of doing a series of tasks with minimal effort. Intelligence is fixed, it is not something that one can change or increase. Either a person is smart or not. Mistakes are not allowed because mistakes show deficiencies and gaps in intelligence. Columbia University did a test on people's brain waves, with differing mindsets. The participants were asked a series of questions and received feedback based on their responses. The study measured the interest level of each participant as they received the feedback. Dweck (2006) found that this study showed when individuals had the fixed mindset, they only wanted to know if they got an answer correct or not. They were not concerned with feedback on how to improve or learn to do something. "The fixed mindset does not allow people the luxury of becoming. They have to already be" (Dweck, 2006, p.25). A fixed mindset impedes an individual's ability and damages self-esteem. How is one to overcome the fixed mindset if they are set on being a failure based off of one bad grade, one unaccomplished task, or one mistake? The fixed mindset is not a viable mindset when looking to achieve long-term success.

The Impact of the Growth Mindset: "Everyone is born with an intense drive to learn. Infants stretch their skills daily. They never decide it's too hard or not worth the effort. Babies don't worry about making mistakes or humiliating themselves" (Dweck, 2006, p. 16). Individuals with the growth mindset accept challenge as a learning experience; it motivates them to overcome challenging tasks. These individuals are not afraid of failure because they take it as a learning experience. These individuals are

constantly asking themselves: “What can I do better next time?” or “How will I approach the problem differently to come up with a different end result?”

Growth mindset ties hand-in-hand with the idea that even though a task is challenging or difficult, I will not give up until I have come to the right answer. It also encourages individuals to strive for better and learn from mistakes along the way. Rather than seeing mistakes as flaws and incompetence, individuals in the growth mindset use mistakes as a guide for what to change the next time. “The passion for stretching yourself and sticking to it, even when it’s not going well, is the hallmark of the growth mindset. This is the mindset that allows people to thrive during some of the most challenging times in their lives” (Dweck, 2006, p. 7). Unlike individuals with the fixed mindset, the growth mindset allows individuals the ability to cope with failure and unsuccessful events. Failure does not diminish self-esteem or confidence in these individuals; rather it encourages to only work that much harder to be successful. Conversely, those with a fixed mindset let failure define them as unintelligent.

Going back to the example of first semester pre-med students in chemistry, the students with the growth mindset took the course head on and were motivated by the rigorous material. Instead of losing interest, students expressed more interest – “It’s a lot more difficult for me than I thought it would be, but it’s what I want to do, so that only makes me more determined. When they tell me I can’t it really gets me going” (Dweck, 2006, p. 23). The students with the growth mindset became more intrigued with challenges and strived to work harder in order to achieve the proficient grades rather than becoming disinterested like the fixed mindset students.

When it comes to receiving feedback, individuals with the growth mindset accept it as constructive criticism rather than an insult to one's own intelligence. Looking back at the brainwaves example from Columbia, the individuals with the fixed mindset were only concerned about right and wrong answers; whereas, individuals with "the growth mindset paid close attention to information that could stretch their knowledge. Only for them was learning a priority" (Dweck, 2006, p. 18). Individuals equipped with a growth mindset are capable of coping with mistakes to build confidence and tenacity when tackling a challenge in the future.

Hindering Growth Mindset in the Classroom: Inside every classroom, teachers are faced with a wide range of students based on ability, achievement, and mindsets. Teachers are also challenged with the many different approaches for building a safe learning community that fosters respect, rapport, and perseverance among all students. One of the Standards of Mathematical Practice that the Common Core State Standards asks teachers to develop in students is perseverance. It is very difficult to develop it if students have a fixed mindset. For example, students are required to look at a student's work and reason whether the student solved the problem correctly. In order to come to the answer, students have to solve the problem and place themselves in another's thought process. This is not an easy process for egocentric adolescents. Problems solving skills takes perseverance because it requires many steps, giving up is not an option in order to discover the correct answer or explanation. The idea of perseverance ties nicely with a growth mindset. However, are teachers equipped with the necessary beliefs and tools to promote the growth mindset in the classroom? Are we utilizing appropriately challenging

tasks and asking the right questions in order to foster this growth mindset, while also building student confidence and self-esteem? Sometimes, what teachers think is beneficial and the “best” approach is actually detrimental to student success and mindsets. More often than not, teachers are promoting a fixed mindset in the classroom rather than a growth mindset, without even recognizing what harm they are doing.

When we complete a task with ease, we feel more confident in our abilities to complete another task. Educators come to the conclusion that if we create ‘success’ experiences for students, they will be more interested in learning more about the topic and trying the next assignment or assessment. However, that is not necessarily true. When students are given tasks with which they are likely to have easy success, educators believe that “success experiences will make learning more pleasurable, increase engagement, build self-confidence and lead to further learning success. In contrast, the experience of failure is assumed to make learning less pleasurable, lower self-confidence and lead to disengagement and thus poorer learning outcomes” (Masters, 2014).

In order to keep students engaged, teachers need to provide challenging tasks. If teachers are only providing tasks that students know they can achieve, what message is that sending to our students? That we do not believe in their ability to tackle a challenge? No wonder teachers hinder the growth mindset in their instruction – they do not even realize what they are doing. Teachers are providing false praise for accomplishing tasks that were created with every intention of student success. “Students who had been praised for their intelligence *lost* their confidence in their ability and their enjoyment of the task as soon as they began to struggle with the problem. If success meant they were smart,

then struggling meant they were not” (Dweck, 2007). Life long learners do not come from fixed mindset and insufficient praise. Praise needs to focus on effort and overcoming a task that was not easy to accomplish. Teachers should switch praise from “Wow, you are very smart” to “That was too easy for you. Let’s do something more challenging that you can learn from.”

Promoting Growth Mindset in the Classroom: The way teachers communicate with their students can easily and unintentionally develop fixed mindsets in a classroom. However, teachers have the great power of influencing students into the growth mindset. Every year, a new group of children walk into the classroom and a teacher is faced with a new set of obstacles. There is always a student that needs extra support, encouragement, or interventions. The teacher is responsible for meeting each and every student where he is and helping him grow to his fullest potential. By creating a classroom around the growth mindset approach, students will become independent and equipped with the necessary tools to be lifelong learners. This can be done through the way teachers communicate with their students.

As mentioned before, teachers have created a conclusion in their mind that if they praise their students on how intelligent they are, it will build their confidence and self-esteem towards learning. However, research is showing that is not necessarily the case. “The wrong kind of praise creates self-defeating behavior. The right kind motivates students to learn” (Dweck, 2007). The type of teacher language that needs to be displayed in the classroom should be geared to promoting effort and perseverance. Going back to the idea of growth mindset, our brain gains more knowledge through learning and

individuals can truly do anything they set their mind to. So how can a teacher encourage this mindset through teacher language?

Teacher Language: Dweck suggests that praise and encouragement needs to tie directly with effort to increase student motivation to complete challenging tasks in order to impact mindset. It is key to put the concept of effort on a pedestal for students because when effort is put forth, learning is maximized and students are ready to take on any challenge. When a teacher communicates to a student that they are “so smart”, the student immediately takes it as “Wow, I don’t need to try as hard because this comes easy for me” – leading to the fixed mindset. However, when a teacher phrases praise as, “I like how you utilized many strategies to solve that math problem. It shows that you are confident in your answer” – it gives the student something specific to focus on. The student understands that the hard work she put forth, resulted in the correct answer and it was not just because she was “smart,” the student put in effort to find the answer. She produced something she is proud of, which leads to the determination to work that hard or even harder on the next problem. Students with the growth mindset see that “effort is a *positive* thing: It ignites their intelligence and causes it to grow. In the face of failure, these students escalate their efforts and look for new learning strategies” (Dweck, 2007). These students do not give up in the eyes of a challenge. Adequate praise for student effort leads to higher motivation and determination to complete challenging tasks, which ties in Danielson’s Framework for Teaching. It is also important to set high expectations for all students in the classroom to promote the development of the growth mindset among students.

High Expectations: Dweck says that along with carefully crafted communication and praise, teachers must have clear and high expectations for each student. Every classroom ranges in ability levels when it comes to students, but that does not mean expectations are to be lowered for the lower ability students. In fact, that is the opposite of what growth mindset suggests. Growth mindset allows the teacher to meet each student at their level and help them progress throughout the academic school year. Each student's starting point is going to be different, but the growth mindset allows teachers to challenge each student and push them to overcome obstacles. There is no judgment during this process. Everyone is motivated to work to the highest of his or her potential. Again, effort and praise are the forefront of the growth mindset process. "When [teachers and students] change to a growth mindset, they change from a judge-and-be-judged framework to a learn-and-help-learn framework. Their commitment is to growth, and growth takes plenty of time, effort and mutual support" (Dweck, 2006, p. 244).

Dweck (2006) mentions a study that Fralko Rheinberg did in Germany with teachers of different mindsets. A few teachers had the fixed mindset belief that all students had a set achievement level and there was no changing it, no matter the instruction. Rheinberg also studied classrooms with teachers of the growth mindset. At the end of the year, the results were phenomenal. "It didn't matter whether students started the year in the high- or the low-ability group. Both groups ended the year way up high" (Dweck, 2006, p. 66). These growth mindset teachers were focused on each individual student's starting point and tracking individual academic progress throughout the year, rather than measuring each student to the grade level standards. "Under a

growth mindset, success is defined in terms of the progress each student makes, or the ‘distance travelled’” (Masters, 2014). Monitoring student progress and growth across an academic year is much more realistic and cohesive to a teacher’s typical classroom of students with wide range of abilities.

The study’s findings clearly suggest that teachers need to move away from the fixed mindset and foster the growth mindset in the classroom. In order for this to occur, it is necessary for students to be aware of their own learning and success. Determination, motivation, effort, and high expectations are all necessary qualities of becoming lifelong learners. It is necessary to persevere through challenges in order to better oneself. The whole idea of growth mindset in the classroom relates back to Masters (2014), saying that “self-confidence is built when they are able to see the progress they are making, when they appreciate how the quality of their work has improved, and when they succeed on challenging tasks that once were beyond them.” In order to promote life-longer learners, it is important to go back to my research question - *“How can an individual’s growth mindset be improved by using self-assessment techniques?”* These self-assessment techniques will be touched on throughout the unraveling of the Danielson Framework for Teaching.

Danielson Framework For Teaching

“The Framework for Teaching identifies those aspects of a teacher’s responsibilities that have been documented through empirical studies and theoretical research as promoting improved student learning (Danielson, 2013). Danielson’s Framework for Teaching outlines some specific teaching strategies that are not only

effective in promoting learning, but also work to develop growth mindset. Teachers are held accountable to implement the Common Core State Standards and prepare students academically, as well as, for their future. Research in student achievement shows that academic success comes from student engagement in intellectually challenging tasks. Student engagement “is defined not as ‘busy’ or ‘on task,’ but as ‘intellectually active’.” Learning activities for students may be ‘hands-on,’ but they should always be ‘minds-on’” (Danielson, 2013). The Danielson Framework for Teaching gives teachers the opportunity to cover the Common Core State Standards while acquiring the necessary skills and tools to be a life-long learner. The first section will discuss how to build a community of learners. The second section will explain why instruction needs to motivate and challenge students. The third section will explain how student’s ownership of learning and the proper communication of learning goals will lead to increased student achievement, which ties in with Danielson’s Domains Two and Three.

For the purposes of my research question, *How can an individual’s growth mindset be improved by using self-assessment techniques?* I will be focusing on Domain Two, classroom environment, and Domain Three, instruction, of Danielson’s Framework. Within the Domain Two of classroom environment, I will focus completely on creating a community of learners. I will dive deeper into Domain Three and discuss three main components: communication with students, student engagement, and the appropriate use of assessment in teacher instruction.

Domain Two – Creating a Community of Learners: Before any concrete academic learning can take place inside of a classroom, the teacher needs to develop a safe

classroom environment where every student feels respected and valued as an individual.

“Students need to function with autonomy: to function independently without constant adult control or direct supervision. Autonomy in a school setting means governing oneself with an awareness of the needs of the community” (Denton & Kriete, 2013, p. 3).

Charlotte Danielson’s Domain Two focuses on building a community of learners where respect and rapport are evident in the environment – teacher interactions with students are respectful; student interactions with the teacher are respectful; and student to student interactions are respectful (Danielson, 2013, p. 35). Part of instilling a growth mindset in a student comes from the teacher and those surrounding the student. In order to build the confidence to approach challenging tasks, students must “feel valued, safe, and comfortable taking intellectual risks” (Danielson, 2013, p. 35).

In order to create this learning environment of respect and rapport, the teacher needs to take the lead through modeling and careful communication, keeping in mind how apprehensive or timid students may be. Danielson (2013) suggests that in a distinguished teacher’s classroom: the teacher is able to exhibit awareness of individual students’ lives outside of the school building; there are no disrespectful interactions between the teacher and students; participation is expected and not forced; and efforts are encouraged. This may look like all students “tracking” or looking at the speaker, without interruptions. Or, the teacher encouraging the growth mindset and using phrases that push thinking, such as, “I see that you solved your problem this way... what is another way to show your answer?” Or, “This problem seemed quite easy for you to solve. Let’s try a more challenging one!” Rather than this mindset being shrugged off, students in this

learning environment embrace the challenge and continue to pursue the problem. Once a classroom of respect and rapport is developed, students begin to follow the teacher's lead to encourage and challenge one another academically – having academic conversations that push students to work harder on tasks. As a result, the teacher is able to create a culture of learning.

Domain Two - Creating a Culture for Learning: Charlotte Danielson's second domain also touches on teachers creating a culture in their classroom that ties directly into a culture of learning. "A 'culture for learning' refers to the atmosphere in the classroom that reflects the educational importance of the work undertaken by both students and teacher... the value of hard work and perseverance, and the general tone of the class" (Danielson, 2013, p. 39). This culture for learning stresses the idea of the growth mindset and that all students need to put forth effort to reach the high, but clear, learning expectations set by the teacher. Since the classroom is seen as a safe learning environment, students take risks to extend their own learning and challenge their own classmate's beliefs. Conversations go beyond the surface and students begin to guide their own learning because they are following the teacher's lead. "Teachers who are successful in creating a culture for learning know that students are, by their nature, intellectually curious, and that one of the many challenges of teaching is to direct students' natural energy toward the content of the curriculum" (Danielson, 2013, p. 39). Students begin to move away from the fixed mindset and start seeing that intelligence is not a fixed trait, rather something they can control based on the effort that they put forth to each task.

Once a culture of learning is established students begin to take ownership in their own academic progress and success. The idea of creating a culture of learning ties into the growth mindset in a way that you are capable of anything that you put your mind to. “In classrooms with robust cultures for learning, all students receive the message that although the work is challenging, they are capable of achieving it if they are prepared to work hard. A manifestation of teachers’ expectations for high student achievement is their insistence on the use of precise language by students.” (Danielson, 2013, p. 40) According to Danielson (2013), a distinguished teacher forms a classroom culture for learning that communicates high expectations for all students, no matter the ability level, and pushes each student to the highest potential. Ultimately, leading to students taking ownership of their own improvements.

Distinguished teachers accomplish the gradual release of student academic ownership by having a growth mindset and radiating a passion for the course content. The teacher begins by modeling her own growth mindset during instruction. For example, let’s look at inferencing, a challenging reading strategy for most students. It is an abstract concept and hard to grasp. Students need to use background knowledge and context clues to infer what a text is saying. When a teacher acknowledges that inferencing is a challenging concept, she is showing vulnerability. The students immediately feel comfortable admitting that inferencing is challenging for them, too. The teacher models perseverance through completing a challenging task, which leads to gradual release. Even though inferencing is a tough concept, students still strive to persevere because it was not easy for the teacher, either. As the gradual release process continues, students

become more hands on in their learning and begin to question content in order to further understand material. Students then begin to “put in the effort and strategies needed to acquire knowledge, and they stick to difficult tasks, learning from their mistakes and setbacks. They have more grit” (Dweck, 2015). Once students begin to steer their own academic success, a teacher can move towards more beneficial instructional techniques that motivate and challenge students towards higher achievement.

Domain Three – Communicating with Students: Charlotte Danielson’s Domain Three touches on three key indicators to qualify a teacher a distinguished teacher: communicating with students, student engagement, and the appropriate use of assessment in teacher instruction. These three indicators tie directly with my research question – *How can an individual’s growth mindset be improved by using self-assessment techniques?* The way a teacher communicates with students is very important. Since the culture of learning has already been established, respectful conversations take place between teachers and students, as well as, among students. In order for students to understand a teacher’s high expectations, the teacher needs to communicate learning goals clearly so that they are understood by all students. According to Danielson’s Framework for Teaching (2013), a distinguished teacher links the instructional purpose of the lesson to the larger curriculum; the directions are clear and the teacher anticipates the possible student misunderstandings. The teacher explains content in a clear manner that scaffolds student learning throughout the gradual release model, with the ultimate goal being complete student independence. It is essential that the teacher present a clear road map for learning in order to foster student independence and create a context that allows

students to take ownership of their learning. Once this independence is gained, students have the ability to tackle challenging concepts and provide explanations for understanding to peers with appropriate academic language leading to total student engagement.

Domain Three – Student Engagement: Clear and consistent communication of learning objectives and expectations leads to a more engaged classroom, which is the next important component of Danielson’s Domain Three. Engaged students are actively participating in challenging, not mindless, tasks and intellectual conversations with peers. These students encompass the growth mindset and are motivated to learn – “‘It’s much more important for me to learn things in my classes than it is to get the best grades’” (Dweck, 2007). Engaged students begin to ask critical questions and develop the ability to deeply explain their own thinking. This component requires that all students are enthusiastic about learning, actively participating on tasks, and persevering when tasks become demanding (Danielson, 2013, p. 71).

A distinguished teacher in the student engagement category of Danielson’s Framework ensures that

“Virtually all students are intellectually engaged in challenging content through well-designed learning tasks that require complex thinking by students. The teacher provides suitable scaffolding and challenges students to explain their thinking. There is evidence of some student initiation of inquiry and student contributions to the explorations of important context; students may serve as resources for one another.” (Danielson, 2013, p. 73)

This means that all students understand expectations and the idea that in order to be successful, each student needs to be a resource for her peers. The most important aspect of this component is that students need to become self-reflective while they gain independence in their learning. Meaning, what do I understand and what do I still need from my teacher or peers in order to have mastered a concept? Fully engaged students that are equipped with the growth mindset are not looking to “waste their time looking smart on tasks that offer them nothing else. They overwhelmingly want tasks that stretch their abilities and teach them new things” (Dweck, 2007).

Domain Three – Using Assessment: The final component of Danielson’s third domain that I will touch on is appropriate use of assessment. This includes teacher assessment of student learning, students assessing peers, and students assessing their own learning. Danielson (2013) strongly suggests that assessment is an integral part of instruction and occurs at all points of a lesson and needs to change from assessment *of* learning to an assessment *for* learning. This entails a teacher being alert throughout the entirety of a lesson and shown through circulating the room or carefully designed questions – “teachers look carefully at what students are writing, or listen carefully to the questions students ask, in order to gauge whether they require additional activity or explanation to grasp the content” (Danielson, 2013, p. 75). A distinguished teacher in this component is skilled in determining the level of understanding each student has on a specific concept, as well as, skilled at providing feedback to students so that students can begin to monitor their own learning progress. Students with a fixed mindset are incapable of doing anything productive with feedback, but those with a growth mindset

thrive on teacher feedback that tells them what they are doing well and how they can improve.

According to Danielson's Framework (2013), a distinguished teacher completely integrates assessment into instruction via carefully planned questions, self-assessments based on given criteria, and timely formative feedback from either the teacher or peers. These assessment skills develop through presenting clear learning goals and scaffolding students along the process of understanding the goals. A distinguished teacher needs to stay flexible throughout the lesson and be prepared to approach any misconceptions. These misconceptions are found while the teacher moves throughout the classroom, asking the carefully planned questions. Through the gradual release model, students are able to notice when they do not fully understand a concept because they are using self-assessment. The valuable skill of student self-assessment is developed after the teacher gives high-quality feedback and clear learning criteria that a student can use to measure personal understanding (Danielson, 2013, p. 79). Research in instructional techniques provides information on how to instruct students and provide feedback in order to meet the needs of all students in the classroom. A teacher is responsible for creating a community of learners, where "students assume a large part of the responsibility for the success of a lesson; they make suggestions, initiate improvements, monitor their own learning against clear standards, and serve as resources to one another" (Danielson, 2013).

Adequate Assessment

Going back to my research question – *How can an individual's growth mindset be improved by using self-assessment techniques?* – and Danielson's Framework for Teaching, I am reminded of the importance of instilling the growth mindset in each student. Fostering a culture of learning is the starting point for instilling the growth mindset because students feel valued rather than evaluated against the spectrum of smart or not. The purpose of promoting a growth mindset among our students is to create lifelong learners, inside and outside of the academic setting. In order to do that, teachers need to change a student's beliefs about intelligence – school is not a place to look smart, it is a place to get smarter (Jacobson, 2013). The purpose of this section is to look at Danielson's Framework for Teaching and within this framework, recognize adequate assessment techniques that a teacher can utilize in the classroom to foster the growth mindset in all students.

Total Participation Techniques: Before a teacher can seamlessly assess students throughout instruction, a teacher needs to know what each student knows and what misconceptions each student may still hold. The traditional question and answer sessions that take place at the end of a lesson do not provide much information for distinguished teachers, therefore most teachers resort to "*total participation techniques* which provide teachers with evidence of active participation and cognitive engagement from all students at the same time. These techniques function as formative assessments that help teachers accurately monitor progress, provide feedback, and modify instruction" (Himmele &

Himmele, 2012). Total participation strategies include, but are not limited to: Think-Pair-Share, chalkboard splash, and debate team carousel.

Think-Pair-Share: The Think-Pair-Share total participation technique allows for formative assessment because it gives each student an appropriate amount of time to think of an intellectual response to the teachers carefully designed question. Once the students have enough time to formulate an answer, the student shares it with a partner in close proximity. Through this sharing, the students become comfortable with their response and gain insight that they may not have had before the sharing step. The teacher's task during this is to circulate around the room and informally gain as much information about understandings and misconceptions while the students discuss the posed question. Before the teacher calls the class back to whole group, the pairs discuss, question, and formulate one response to share with the entire class. Finally, all pairs share out their response with the rest of the class. According to the NCTE (2016), this strategy helps students develop conceptual understanding of a topic, develop the ability to filter information and draw conclusions, and develop the ability to consider other points of view. The Think-Pair-Share strategy promotes the growth mindset in students because it allows each individual to gain knowledge from others; together the pairs are working to form the best answer possible and develop confidence when presenting it to their information to the entire class.

Chalkboard Splash: The Chalkboard Splash is also a common total participation technique that teachers use as necessary formative assessment. "The chalkboard splash is a simple way to get all students focused on the big picture of your lesson. It starts with a

question or a prompt” (Himmele & Himmele, 2012). This technique begins with a quick-write or a quick-draw to activate student thinking. This strategy is most successful when the teacher poses a sentence prompt that needs to be completed. While the students are responding to the prompt, the teacher moves around the classroom, engaging in quick discussions with individual students to understand a student’s deeper thought process. The students then place their quick-writes on a random board around the room. Students then go around and analyze each other’s responses on the same topic. They discuss the similarities, differences, and developed a summary statement of the topic’s big idea (Himmele & Himmele, 2012). After the students have the chance to dissect each response, the teacher leads a discussion of the similarities, differences, and surprises that the students pointed out during their investigation. This gives the teacher an opportunity for student feedback and to address any misconceptions that may be present. Again, these skills acquired during the chalkboard splash technique, discussing and analyzing, are necessary skills for students to maintain in order to be lifelong learners.

Debate Team Carousel: The last total participation strategy for formative assessment that I will mention is the debate team carousel. This strategy includes a graphic organizer for every student with four boxes on it asking the same question. Before the students have the opportunity to write their answer to the question. The teacher poses the question and asks the students to think about it for a minute, allowing them to come up with supporting details (Himmele & Himmele, 2012). The first box asks each student to write her own yes-or-no opinion to a question posed by the teacher. Once

the first student gives her opinion, she passes the graphic organizer to her neighbor. The neighbor

“addressed the prompt in the second box, which asked them to read their classmate’s response and add another reason why they supported that point of view... after initialing the second box, the students passed the paper to the person sitting on their right, who was asked to refute what was written in Boxes 1 and 2 again... the papers were passed once again, this time asking the recipients to read the comments in all three boxes, state their opinion, and provide reasons why they held that opinion.” (Himmele & Himmele, 2012)

Once all the boxes are completed, the original student receives the graphic organizer back and reads her classmates’ opinions. Finally, the teacher asks for volunteers to share out the arguments provided by other students. This technique not only allows the teacher to see each students thought process, but it also allows students to think deeply about a topic, build off one another, and appreciate different perspectives (Himmele & Himmele, 2012). Like the other two total participation techniques mentioned, the debate team carousel provides students with the opportunity to develop crucial skills that create lifelong learners.

Total Participation Techniques allow teachers to seamlessly incorporate assessment into each lesson plan while every student is actively engaged in the lesson. Think-Pair-Share, chalkboard splash, and the debate team carousel are only a few total participation techniques that are utilized in the day-to-day classroom. “Total participation techniques provide simple and effective ways to cognitively engage students and assess

the depths of their understandings, enabling the teacher to modify instruction and deliver targeted feedback” (Himmele & Himmele, 2012). Now that we know how to cognitively engaged students in their learning, it is time to use the gradual release model and support students in providing peers and themselves with feedback on their own learning and understanding.

Gradual Release of Teacher Feedback: Every teacher to student interaction has the opportunity of promoting or hindering a child’s attitude towards school. When teachers are trying to foster the growth mindset in the classroom, they have to be sensitive to the feedback that they provide to students. Carol Dweck (2007) states that praise is intricately connected to how students view their intelligence. Some students believe that their intellectual ability is a fixed trait... others believe that their intellectual ability is something they can develop through effort and education. I have come to realize that in order to instill a growth mindset, my feedback to students needs to “be consistent, specific to the tasks or concepts being learned, and inclusive of the incremental progress that students are making” (Jacobsen, 2013).

Going back to my research question, *How can an individual’s growth mindset be improved by using self-assessment techniques?*, I think of these two mindsets: fixed versus growth. Students with the fixed mindset have limited motivation and confidence in their abilities, especially when tasks become challenging. On the other hand, students with the growth mindset believe that they can achieve anything with effort and persistence. With the application of Carol Dweck’s Mindset Theories, the Danielson Framework for Teaching and assessment techniques, teachers are able to truly model and

foster the growth mindset in students and allow them to take ownership of their own learning. This is because students feel valued by both the teacher and peers in their classroom. Students are ready to monitor their own learning and “feel permitted to think for themselves and to openly share their understandings – which frees them to become the driving force in their own learning” (Bookhart, Moss & Long, 2008).

Self-Assessment Techniques to Monitor Own Learning

Now that the culture of learning is established, communication of expectations is clear, and the growth mindset is instilled, students are empowered to take hold of their own learning through self-assessment techniques. When students become independent learners and part of their own assessment process, teachers begin to see higher levels of student engagement, resulting in higher academic achievement. These self-assessment techniques are directly related to previously mentioned formative assessment techniques; however, the students take control in “recognizing and developing clear learning targets... collecting evidence of their learning, monitoring their own progress, and giving and seeking feedback” (Chan, 2014).

The clear communication of the learning target is the first step in this self-assessment process. It is important to make these learning targets into “I can...” statements that students are able to easily relate to. Students benefit from these “I can...” statements being displayed around the classroom or even at the top of the project they are tackling. The “I can...” statements provide a starting point for students and clearly communicate what the student needs to understand before the concept is mastered. For example, “I can determine the point of view of the narrator of a realistic fiction story.”

This learning target is tied directly to the common core standard RL3.6 and guides the student to what needs to be accomplished in order to master the lesson. It is important to also have models of student work displayed so that students understand what is necessary for a proficient product. The models of student work allow students to compare their own work with the expected criteria.

Next, students are held accountable to collect evidence of their own learning and monitor their own progress. For most teachers, this may seem impossible. However, placing that trust on students increases effort and motivation to accomplish tasks sufficiently (Bercher, 2012). Before students can begin to monitor their own progress, teachers need to assist in setting appropriate goals. Once the students have their goals, they can monitor their progress, “promoting student ownership because they decrease the time teachers need to devote to progress monitoring” (Chan, 2014).

Lastly, students must receive timely feedback from both the teacher and peers after they have analyzed their own progress. Throughout this process of analysis, students are able reflect on their achievements. The feedback process allows students to communicate about a specific learning target and assess whether the student has mastered it or still needs an intervention before moving on to the next concept. Bookhart, Moss & Long (2008) suggest that teachers give students the necessary guidance so that students realize the clear end results. This happens by providing “clear feedback and achievable steps toward improvement. Help students see the connections between specific strategies that they used and their accomplishments.... Revealing the connection between what

students do and what they learn leads them toward self-efficacy” (Bookhart, Moss & Long, 2008).

With the right mindset, students are fully capable of becoming the driving force in their own learning. Teachers are there to assist the students in the process, but students need to take control in developing clear learning targets, monitoring their own learning progress, and seeking critical feedback from teachers and peers.

Conclusion

As I think about my research question “*How can an individual’s growth mindset be improved by using self-assessment techniques?*,” I have had the opportunity to dissect Carol Dweck’s Mindset Theories, the Danielson Framework for Teaching and how it provides teachers with the appropriate strategies to instill the growth mindset in students. I reviewed Carol Dweck’s theory of fixed versus growth mindset and provide reasoning for the necessity of fostering a growth mindset in classrooms. An individual with a fixed mindset believes that intelligence is fixed; there is no way to increase intelligence. On the other hand, an individual with a growth mindset believes that one’s intelligence can be increased with hard work and perseverance. I addressed the appropriate use of teacher language, constructive feedback rather than praise, and modeling in order to develop a growth mindset among students.

I, then, dove into the Danielson Framework for teaching, specifically Domains Two and Three. I went over how creating a classroom environment of respect and rapport will lead to a culture of learning. I also went more in depth into Domain Three about instruction. The key to strong instruction is communicating clearly with students; student

engagement; quality feedback; and purposeful assessment. This research allowed me to see the clear connection between Dweck, Danielson, and Total Participation Techniques that all encourage the growth mindset in students. I provided instructional strategies and techniques that support students in taking ownership of their own learning. These appropriate strategies include: clear communication, high levels of student engagement, critical feedback, and the use of formative assessment. This journey provided self-assessment techniques that are crucial for teachers to understand and utilize throughout instruction in order to increase student engagement and develop lifelong learners inside and outside of the classroom.

In chapter three, I will explain the study that will take place in the fall of 2016 with a classroom of third grade students. This study will take the mixed methods approach that shows the change in student's mindset towards school. I will begin my research with an attitude survey at the beginning of the school year. From the results of the attitude survey, I will interview students and colleagues, while doing observations to collect more data of students developing the growth mindset.

My mixed methods research design will be described in more detail throughout chapter three including, what I am doing, how I am collecting my data, establishing biases, and predicting outcomes that I expect to see throughout my research. Lastly, in chapter three I will introduce my participants, the variables, and any threats to validity that I may come across during my research process.

Chapter Three

Methods

Introduction

The idea of growth mindset is becoming a more important concept in the educational world because educators are striving to create lifelong learners inside and outside of the the classroom. In order to do this, educators need to promote the growth mindset through clear instruction. The question, *How can an individual's growth mindset be improved by using self-assessment techniques?*, came to me after working one year in a Chicago inner-city charter school. My classroom was full of proficient third graders who loved to learn, get the right answer, and were competitive with their assessment scores. However, these students lacked the necessary skills to assess their own learning and monitor when they truly understood something versus when they needed more interventions on a concept. After having many discussions with my academic coach on this, I decided that it was time to truly dive into Carol Dweck's mindset theory and Danielson's Framework for Teaching to compose instructional techniques that guide students towards the growth mindset and academic awareness.

My research on Carol Dweck's mindset theory and Danielson's Framework for Teaching led me to many findings including ways to promote growth mindset in all students and techniques that encourage student self-assessment of learning. Dweck discusses the concept of a growth mindset, the idea that hard work and perseverance lead to increased knowledge and success, and that intelligence is something that can be gained. Danielson's Framework for Teaching supports Dweck's growth mindset approach

because the framework provides domains that lead to student independence during the learning process. The framework promotes student independence through the gradual release model and equipping students with appropriate strategies and techniques that allow academic awareness. I discovered that through the proper modeling, students will become more self-sufficient, inside and outside of the classroom, if I hand the reins over to my students and allow them to be the driving force in their learning.

In this chapter, I describe the setting where the research took place. This description created an image of my school's community, as well as, my own classroom. After I review the setting, I will address the participants in my study and the methods that I will use during my research. My goal is to design and implement an instructional plan and techniques that will foster the growth mindset in all students.

Setting

I teach in within the LEARN Charter School Network in Chicago, Illinois. My network is made up of ten schools spread across the city of Chicago's most impoverished communities. This network contains nine elementary schools and one middle school which serves a total of 3,900 students. The demographics of the network are: 89% Black, 9% Hispanic, and 2% other. Within this network, our schools are filled with students that are 96% minority and 100% of the students qualify for the free and reduced lunch program. These statistics are the driving force behind LEARN's mission, which provides all their students with a superior academic foundation that properly prepares each student for college. The rigorous instruction provided by LEARN leads to encouraging graduation rates – 95% of LEARN alumni graduate from high school; 95% of LEARN

alumni attend college; 71% enroll in a four year college; and 24% enroll in a 2 year college.

Specifically, the school that I work at is located in East Garfield Park, a high poverty neighborhood within the West side of Chicago, and made up of 350 students spread across kindergarten to fifth grade. The demographics of the school are 99% Black and 1% other. By special population we have less than 1% English Learners, 20% special education, and 100% free and reduced lunch program. The staff contains: 37.5% teachers, 30% paraprofessionals, 10% special education teachers, 7% behavioral support, 7% academic support, 5% administration, and 3.5% other staff. A majority of the staff has more than three years teaching experience. Over 50% of the staff members hold a Master's Degree and 100% of the staff hold a Bachelor's Degree. The student to teacher ratio in kindergarten through second grade is two teachers per class of about 26 students. In grades three through five, the ratio goes to one teacher per 27 students.

The LEARN Charter School Network has provided four professional development days in the 2015-2016 school year for teachers to learn about and practice instructional techniques that support the Danielson Framework's suggestions for effective teaching. familiarize themselves with the Danielson Framework for Teaching and provide time to alter instructional plans to adequately utilize assessment techniques to promote student achievement. Our principal also meets with each teacher frequently to discuss the Danielson Framework for Teaching and provide observational feedback for the teacher -- providing the teacher with strengths and areas for instructional improvement. Although

the Danielson Framework for Teaching is our system for teacher evaluation at my school, it still is new and has yet to be used with fidelity across all grade levels.

Participants

The participants for my study were from my own third grade classroom of 28 students for the 2016-2017 school year. I monitored all of my students through this research; however, I worked closely with a focus group because it was a way to zoom in on specific student behaviors during the research process. This focus group was made up of nine students consisting of: three academically low, three academically proficient, and three academically high students. Within these students, I had at least one student who has the fixed mindset and one student that has a growth mindset for each ability level. My academically low students are Steven, Tasha, and Terryon. Steven and Terryon were my students chosen with the fixed mindset for this academically low group. My academically proficient students are J’Niyah, Keyshia, and Romell; Romell being the student in this group with the fixed mindset. The academically high students are Angelina, Ashiya, and Kaden. Within this academically high group, Kaden was the student with the fixed mindset.

Academically Low Students

Steven was a new student to LEARN 7 Charter school as of this 2016-2017 school year. The first day that he came into my classroom, I could tell that academics were not a priority for him and he came with vast social-emotional baggage that could hinder his learning abilities. Steven was closed off to trying new things and wanted to goof off more than taking school seriously. When presented with a task that came with a

little bit of effort or seemed challenging, Steven turned away from it immediately and said “I can’t do it. This is too hard.” Steven made it clear in his academic progression and behavior that he did not believe that through hard work and perseverance, he could accomplish anything. I made it my goal to build a positive teacher-student relationship with Steven so that I could change his fixed mindset into a growth mindset. I built a relationship with him by checking in with him during the morning and afternoon, having lunch with him, and communicating back and forth with him in a private journal.

Tasha was a very quiet student, which made it hard to know where she fell along the fixed and growth mindset continuum. She consistently received low scores on standardized assessments throughout her time at LEARN 7. She made minor growth from year to year, but her effort level in my classroom showed me that she fell more towards the growth mindset of the spectrum. Tasha displayed traits of a growth mindset because she constantly worked hard to understand new and challenging material. She tried multiple strategies when working through challenging problems and rather than giving up, Tasha asked for help when she did not understand something. Very rarely did I hear Tasha say, “I don’t get this” or “This is too hard, I’m not doing it.” Instead, I observed her utilizing growth mindset and accessing her toolbox of learning strategies to solve problems or even collaborating with other classmates to persevere through challenging tasks.

Terryon was also a student in my academically low student group that I saw with a fixed mindset. He was easily discouraged by texts that were longer than a few sentences and math problems that did not call for addition or subtraction to find the answer. I

observed Terryon using phrases such as: “I can’t do this”; “I don’t get this”; “I will never be able to do this”; and “Will you just tell me the answer?” Paired with a fixed mindset was Terryon’s stubbornness. Many times, he refused to work through tasks with a partner or even with me. Instead, he put his head down and hoped that enough time would pass by so he would not have to complete the give task. Sometimes, he would even cry with frustration. When I saw these tears, I realized that Terryon was also battling major social emotional issues that only ignited his fixed mindset. Terryon began to open up to me about how academics are not a priority at home and that his mom is not around to help with his reading and other school work because she is focused on work and the newborn baby. My regular conversations with Terry about his fixed mindset led me to the conclusion that it stems from minimal attention at home, low self-confidence, and his inability to move quickly through tasks, like his classmates. When I worked with Terryon, I saw he was capable of overcoming obstacles but he did not believe in himself, which led me to my mission with him — fostering a growth mindset so that he could tackle any challenge he faced.

Academically Proficient Students

J’Niyah seemed to understand most concepts after the whole group lesson. She could go back to her desk and successfully complete her work, with minimal assistance. J’Niyah did not quit when a task presented a challenge, rather she worked through it until she came to an answer. Sometimes, she worked with a peer that she saw “more intelligent” to reassure herself that she found the correct answer. She wanted to be reassured that she was doing the a task correctly by the validation of someone else, rather

than using a self-assessment strategy to check her work. J’Niyah came from a home where both parents were very involved in her education and concerned about her doing well. As a teacher, I was grateful to have involved parents. However, J’Niyah would come to school frequently upset about her morning at home. It took a while for her to open up to me about this, but she voiced that her brother and dad called her “stupid” for not understanding how to do an “easy math problem” from last night’s homework, giving evidence to why she was constantly seeking validation when completing tasks. J’Niyah was a student that teetered between the fixed and growth mindset because she had the academic ability but lacked in confidence when faced with a challenge.

Keyshia is seen to be a student with a growth mindset. Keyshia loved school and was motivated to do well. She came from a supportive family where everyone from mom to grandpa was involved in her education and doing well in school was a top priority. Keyshia maintained a positive attitude and had the academic ability to get through third grade as an academically proficient student. However, average is not where Keyshia wanted to fall, which showed me that she was a student with a growth mindset. She was motivated by challenging tasks and did not settle for not understanding a task. Keyshia wanted to find the correct answer and she would not quit until she came to a full understanding of something. Keyshia was successful because she worked with others, asked for help, used many strategies to solve problems and assessed her own work to ensure that she was working to her fullest potential.

Romell maintained a fixed mindset. Romell was a prime example of how a mindset can shift from day to day. Romell was my fixed mindset student in my

academically proficient group throughout my research because he had all the academic ability but was not willing to put in any effort when faced with an obstacle. Most days, Romell rarely double checked his work and was satisfied with turning in the bare minimum, never elaborating on any task. Romell refused to write complete sentences and when asked to explain how he found an answer his response was always, “I just know that’s the right answer”. Romell came from a supportive family and academic success was a priority. No matter the consequences, whether it was missing football practices or receiving bad grades on his report cards, he was still unmotivated to change his level of effort leading him to fall in the fixed mindset group. However, every once in a while, Romell showed signs of developing a growth mindset. He would come to school ready to go the extra mile. On these days, Romell was willing to write in complete sentences, check his work, and believed that he was more than an average student. Romell’s growth mindset was something that had to come from within, rather than something that was forced on him, which was his story throughout the entire study. He wavered back and forth from being a fixed mindset student to developing some sort of growth mindset.

Academically High Students

Angelina was new to LEARN 7 this year. She was that model student for good behavior and work ethic. Angelina’s motivation stemmed from academic success and she did not give up when faced with a challenging task, rather she utilized strategies to overcome obstacles and produce outstanding work. Angelina was a passionate student who was curious to learn more and grow as a student. She did not settle for not understanding a task, rather she would try multiple strategies in order successfully answer

questions. Angelina came from a supportive single-parent household. Her parent was involved and encouraged academic success by working with Angelina at home with homework problems and reading. Angelina portrayed many traits of a growth mindset and truly understood that hard work and perseverance goes much further than inherited academic ability.

Ashiya was a quiet student that had the academic ability to be a high achieving student. Once I got to know Ashiya, I realized that she not only had the ability to get through tasks, but she also had to work extremely hard to maintain her progress. I also learned that she came from a supportive single parent home where she is raised by her dad and granddad. Ashiya's dad works long hours, leading me to only meet him at conferences where he voiced that Ashiya's education is very important to him and I need to continue to challenge her so she can grow to her fullest potential. Ashiya is a prime example of an individual maintaining a growth mindset because she was not discouraged by having to work twice as hard to finish a task, rather she used it as motivation to succeed. When faced with an obstacle, Ashiya rises to the challenge with different skills and strategies to solve the problem and assess her progress along the way. Ashiya also used her growth mindset to encourage her classmates. She realized that not everyone understands concepts at the same pace, which led her to encourage her peers to never give up and instead try a different approach.

Kaden was a very bright student and truly thrived in reading without much effort. He never hid that he preferred to tackle any challenge as long as it involved reading. His fixed mindset surfaced when it came to math. He would escape anything math related in

any way possible. He would try to use the bathroom five or six times during the math block, he would misbehave so he had to refocus in another classroom, or he would try to hide in the classroom with hopes that it would go unnoticed. Kaden had the academic abilities to be successful in math, but it took a little more effort on his part. During reading, Kaden held a growth mindset that he could accomplish any task possible and he was willing to improve his reading skills even if it took extra effort. On the other hand, he had a completely fixed mindset when it came to math. Kaden came from a supportive home life and he was motivated by his parents. He repeatedly told me, “Ms. Ryan I need to do well this year because both of my parents were held back in third grade.” Despite this motivation and the support of his parents, Kaden still refused to put the necessary effort into math leading him to be the fixed mindset student in my academically high group.

Methods

My school has an extended school year, which is 194 schools days versus the districts 180 school days, and our first day was August 8th. I received approval from the Human Subject Committee at the end of November. During the first week of research, I introduced the idea of fixed versus growth mindsets to my students during a week long mini unit, while monitoring the nine students in my focus group. From there, I utilized data from the Fountas and Pinnell’s Benchmark Assessment System (BAS) and MAP standardized assessment, altered my lesson plans to incorporate high engagement techniques, had weekly observations by my academic coach, and gathered data from weekly student self assessments.

BAS and MAP Assessments I took the results from the beginning of the year BAS and MAP scores so that I could track student academic success. I measured my student attitude observations against the MAP because it is scored in a standardized way; meaning I could ask myself “How does a standardized test affect or change the student’s attitude? Is it a positive change? Does it motivate the student to do better?” I then used the BAS assessment because it allowed me to give my own personal perception of student attitude towards academics. This process was repeated again during the winter scoring period. By the time the spring approached, I saw a change in student attitudes and test scores.

Lesson Plans during this research were a key aspect in fostering the growth mindset in my classroom. The lesson plans needed to be carefully crafted to touch on Domains 2b and 3d of Danielson’s Framework for Teaching. Domain 2b is about creating a culture of learning. In order to do this, I utilized total participation techniques like cold calling and think-pair-share and provided instructional strategies that helped students find their voice. I made it a point to use at least one total participation technique per lesson. I monitored this through the observations done by my academic coach. I also took into account my own self-reflection by reviewing the work and instruction that I did and held myself accountable to implement the instructional strategies included in my lesson plans. It is important to provide lessons that strongly encourage student independence throughout the learning progress. Domain 3d is about the appropriate use of assessment in instruction. Each lesson plan had assessment intricately woven through every lesson, meaning that I had to push myself to utilize formative assessment data on a daily basis

outside of the traditional exit ticket. The use of assessment allowed me to include timely feedback to students and guide them toward taking ownership of their own learning and self-assessment. The end goal of carefully designed lesson plans is to promote student independence and ensuring each student can use their own data as proof of learning and understanding of concepts, which was monitored throughout student self-assessments.

Weekly Observations held me accountable for doing my research with fidelity. My academic coach came in weekly and monitored specific aspects of my lesson, especially engagement techniques. My academic coach looked for specific total participation strategies, which I included in my lesson plans beforehand. After the lesson, my academic coach and I debriefed and discussed the data points that she took down during her observation. For example, I used a specific total participation technique ‘cold calling’. My academic coach monitored how many times I cold called on a student versus calling on students with a raised hand. Through analyzing qualitative and quantitative data with my academic coach, I was able to provide instruction designed to promote a growth mindset and guide students towards academic independence.

Student Self-Assessments At the end of each week during my research period I gave each of my 28 students a questionnaire that allowed students to self-assess their work and efforts during the week. The self-assessment was giving to each individual student and allowed me to track the opinion’s of his or her own work and efforts.

Conclusion

I teach in a low-income neighborhood where academics are not always a priority for families because of the circumstances that surround them. Students come to our

school eager to learn because they know it is a safe place that provides them a way to rise above the community that they come from. My job is not to only teach the academics, but also equip these students with skills and strategies that will help them be successful in life, no matter the path they choose. The idea of growth mindset allows each individual to be successful, but it needs to be taught appropriately to avoid falling back into the fixed mindset. To answer my research question: *How can an individual's growth mindset be improved by using self-assessment techniques?* I monitored student attitudes throughout the course of two quarters and carefully created lesson plans and rubrics to guide students towards a growth mindset. The ultimate goal being that students will know when they need to ask for help and how to persevere when faced with a challenge.

Chapter 4 will focus on the artifacts, specific tools, lesson plans, and strategies that I used during my research. The format of Chapter Four will provide a rationale, explanation, and example of each section mentioned. Chapter Five will reflect upon my research and conclude my learning during this process.

CHAPTER FOUR

Results

Introduction

In regards to my question: *How can an individual's growth mindset be improved by using self-assessment techniques?* I reflected on whether or not the specific tools, instructional design, and strategies that I used during my research impacted my students' growth mindset and answered my research question. As previously stated by Carol Dweck, "No matter what your ability is, effort is what ignites that ability and turns it into accomplishment." I kept Carol Dweck's quote in the forefront of my mind during my research and I believe that my research has provided my answer. The tools, instructional design, and strategies that I used during my research provided a variety of ways to foster an individual's growth mindset in order to persevere when faced with a challenge.

Participants

I received my Human Subjects Committee approval at the end of November, allowing me to begin my study for my question: *How can an individual's growth mindset be improved by using self-assessment techniques?* at the beginning of December and in the middle of second quarter of the school year. I had already developed a solid relationship with each of my students and understood each of my students abilities, effort levels, and mindset because they entered my classroom almost four months prior, on August 8th. I was able to pick nine students from my classroom population of 28 to zoom in on as my focus group for the purpose of my research question. I chose these nine students because they were a mixture fixed and growth mindsets and from different

achievement levels. Within those nine students, I divided the students into groups of three per academic ability level: three academically low, three academically proficient, and three academically high students. My academically low students were Steven, Tasha, and Terryon. Steven and Terryon were my students chosen with the fixed mindset for this academically low group. My academically proficient students were J’Niyah, Keyshia, and Romell; Romell being the student in this group with the fixed mindset. The academically high students were Angelina, Ashiya, and Kaden. Within this academically high group, Kaden was the student with the fixed mindset. It was important to strategically pick these students, focusing on picking at least one student in each group that has more of a fixed mindset. The other students were observed to generally have a growth mindset in the classroom.

BAS and MAP Assessment Data

Once my focus group of nine students was created, I needed to look into the student data to see where each of these students fell on the levels of academic achievement. It was important for me to track this data in order to see if students were growing, in an academic sense, during my research. Below is the data of my nine students compared to BAS grade level benchmarks and NWEA end of grade level norms.

Table 4.1 - Data for Academically Low Students

	Start of Quarter 2 BAS	End of Quarter 2 BAS	End of Quarter 3 BAS	Winter MAP Reading	Winter MAP Math
Third Grade Norm	M	N	O	195.6	198.2
Steven	K	N	O	172	193
Tasha	M	M	N	186	185
Terryon	K	M	O	179	189

Table 4.2 - Data for Academically Proficient Students

	Beginning of Quarter 2 BAS	End of Quarter 2 BAS	End of Quarter 3 BAS	Winter MAP Reading	Winter MAP Math
Third Grade Norm	M	N	O	195.6	198.2
J’Niyah	M	N	O	207	206
Keyshia	M	N	O	207	204
Romell	L	M	N	195	204

Table 4.3 - Data for Academically High Students

	Beginning of Quarter 2 BAS	End of Quarter 2 BAS	End of Quarter 3 BAS	Winter MAP Reading	Winter MAP Math
Third Grade Norm	M	N	O	195.6	198.2
Angelina	Q	R	S	218	206
Ashiya	Q	R	S	203	208
Kaden	P	Q	S	201	199

**Due to the scheduling of Chicago Public Schools, my data for the Spring MAP for reading and math are not included in the above table.

Instructional Design

After taking a look at each individual student’s abilities, mindset, and scores on the BAS and MAP assessments, I was able to formulate an instructional design that would foster the growth mindset through self-assessment techniques within my classroom, evidenced by the nine students of my focus group. First, I had to introduce the idea of mindset to my students and dive deeper into the differences between fixed

mindset and growth mindset to build awareness. I did this through a series of lessons. Next, I incorporated total participation techniques such as cold calling and think-pair-share into my daily lesson plans to ensure that students were staying engaged in the lessons. I utilized this approach for a continuous assessment of students, while providing timely feedback to students. Then, my academic coach came into the classroom and observed the students while I was instructing. This data included student attitudes, observations, and participation efforts. Lastly, I had students self assess their own progress and work on a weekly basis. This assisted students in monitoring their own levels of effort and participation.

Mindset Lesson Plans: I planned four days of lessons to introduce and familiarize students with fixed mindset versus growth mindset at the beginning of my research. On day one, I introduced the idea of mindset by using a read aloud, The Most Magnificent Thing by Ashley Spires. This is a story about a little girl and her dog wanting to create the most magnificent thing. The little girl and her dog work tirelessly, putting in hard work and dedication, to find that she has not created anything at all so she gives up on the project. The dog encourages the little girl to go on a walk and then go back to the most magnificent thing, which worked. The little girl persevered and created the most magnificent thing, which happens to be a sidecar for her dog. The takeaway is hard work and perseverance. After I read the story, we had a conversation about the little girl. We discussed her character traits and what made her successful with her most magnificent thing. I then posed the questions: “Who would have given up?” and “Who would have persevered?” Out of twenty-eight of my students, ten of them said they would have given

up and three of them happened to be part of my focus group: Kaden, Steven, and Terryon, which was not consistent with what I expected. I expected these three to put up more of a battle before buying into the growth mindset.

Day two consisted of defining the difference between fixed mindset and growth mindset and creating an anchor chart that displays the differences, which was then displayed in the classroom as a visual for students to go back to as a reference. The definitions on the anchor chart included: fixed mindset means that we are born with a certain amount of intelligence and potential that they cannot change; and growth mindset means that I can grow with hard work and perseverance. To ensure students understood the difference between fixed versus growth mindset, we went through different scenarios and students had to decide whether each situation was an example of fixed or growth mindset and give an explanation.

Figure 4.1 - Fixed Versus Growth Mindset Scenario Cards

1. Calvin was frustrated with a math problem. He stopped and said “I don’t get this <i>yet</i> .” He got a drink of water and went back to his desk to try the problem again.	5. Brittany was trying to read a complicated chapter book and said “I am so stupid. I will never be a good reader.” Then she threw the book.
2. You overheard your friend Josh say “this is too hard. I am not going to do it.”	6. “Math will always be confusing to me, no matter how hard I try or how much Ms. Ryan helps me.”
3. Tariq thinks that division is very hard but he goes and asks a classmate to explain to him a strategy to use.	7. One day you hear your friend, Elijah, say “I will never be smart. I am just stupid.”
4. Michael is not the best basketball player but he practices every day after school. He is determined to make the basketball team next year.	8. Sam says, “I hate hard homework problems. I would rather not have recess than do my homework.”

On day three, the students joined me on the carpet to talk about another anchor chart relating to fixed versus growth mindset. For this lesson I provided examples of what we say to ourselves when we are stuck in the fixed mindset approach. I have a distraught character displayed with “Fixed Mindset” written underneath him. This character has conversation bubbles saying negative comments to himself. On the other side of the chart is a happy character, who represents the growth mindset. The task was for students to turn and talk to their neighbors and come up with a growth mindset comment to counteract each of the fixed mindset comments. This task was beneficial because students began to see the striking difference between the two mindsets. At this point of the week, students were beginning to understand that it is important to maintain a growth mindset in order to be a successful individual, not only in school but in all aspects of life. I also started noticing a light bulb go on in Kaden and Steven’s head and beginning to understand that they are in the driver’s seat of their own success.

Figure 4.2 - Growth Mindset Versus Fixed Mindset Anchor Chart



On the final day of the mindset mini unit, I utilized another read aloud of a familiar book called Giraffes Can't Dance by Giles Andreae. This story is about Gerald the giraffe who so badly wants to dance but his legs and neck are too long. Gerald does not give up and by the end of the story, he is dancing in his very own and unique way. After the read aloud, the students discussed things that they cannot do *yet* with their table group, emphasizing on the word *yet* because it is still achievable with hard work and perseverance. From here, each student took a note card and thought of one academic skill they could not do *yet* and one thing outside of school that they could not do *yet*. I used this activity as an indirect way to back to my research question: *How can an individual's growth mindset be improved by using self-assessment techniques?* by asking students to set individual goals for themselves. This was a very powerful activity for all of my students, even for the ones I worried about being stuck with a fixed mindset. On Terryon's notecard he wrote that he cannot do "Today's Number" by himself *yet*. J'Niyah said that she cannot find the main idea *yet*. Kaden wrote, "I do not enjoy math *yet*, but I really want to get better at it." Setting these goals was a huge turning point in mindset for my students. I taped them on each student's table spot as a reminder of maintaining a growth mindset through hard work and perseverance.

Total Participation Techniques Embedded In Fraction Lesson Plans. As stated in Chapter Two, it is essential that teachers have the ability to seamlessly assess students throughout instruction rather than solely at the end of a lesson in the form of a traditional exit ticket. Teachers formulate lesson plans that incorporate total participation techniques to gauge active participation and engagement in order to accurately monitor student

progress. When done correctly, total participation techniques are used as a formative assessment. Keeping my research question in mind: *How can an individual's growth mindset be improved by using self-assessment techniques?* I strategically created lesson plans that incorporated total participation techniques to monitor student achievement throughout my research.

My third grade students began a three week fraction unit during the month of February. I quickly came to the realization that my students had minimal knowledge when it came to fractions, which meant three things. First, my previously created fraction lessons plans needed to change drastically. Second, I needed to incorporate total participation techniques throughout my lessons to monitor student understanding of newly learn fraction concepts. The total participation techniques that I heavily used during this unit were: cold calling, think-pair-share, and quick writes. The intention of using these three specific total participation techniques were to encourage active student participation and high levels of student engagement. Third, this unit was a great opportunity to challenge each student's growth mindset. Being that fractions were a challenging concept for my entire class, this unit was a way to see which students in the classroom maintained a fixed or growth mindset when it came to rigorous content.

My academic coach came in and monitored the nine students in my focus group. At the beginning, she noticed fixed mindset behaviors from six of the nine students from my focus group. Angelina, Ashiya, and Kaden were all participants in my academically high group and they displayed signs of avoidance when it came to participation during the beginning lessons of the fraction unit. Kaden did not willingly participate in whole

group discussions and each time I cold-called him, he slouched in his chair, rolled his eyes, and resisted the idea of participating. Angelina and Ashiya avoided eye contact and tried to ignore the questions being asked. It was interesting to see that my highest learners were the ones that were discouraged most when it came to fractions, especially since they seemed to make such great progress when it came to developing a growth mindset. On the other hand, my academically low student group seemed to display the best growth mindset during the unit on fractions. Despite the rigorous content level, Steven, Tasha, and Terryon were highly engaged throughout the lessons and constantly participated no matter if their answer was correct or not.

As the unit progressed, I incorporated more total participation techniques into my fraction lesson plans, which fostered more of a growth mindset within the academically high students. All nine students in the focus group greatly benefited from the think-pair-share strategy because they were able to discuss and formulate an answer before having to share out a final response to a question. I also noticed my academically proficient and academically below students initiating group conversations and taking the lead in discussions more than the academically high student group. Lastly, quick writes became a great assessment tool because it allowed me to gauge student understanding on a concept before they had the opportunity to discuss a question with their peers. I saw the academically high student group have higher levels of confidence when they responded to quick writes, than sharing out with cold calls and think-pair-share. The use of cold-calling, think-pair-share, and quick writes during the three week fraction unit fostered

growth mindset among all students, which also increased student engagement levels and active participation through the use of total participation techniques.

Student Self-Assessment. At the end of each week during my research period I gave each of my 28 students a questionnaire (shown below) that allowed students to self-assess their work and efforts during the week. The self-assessment was given to each individual student and allowed me to track the opinion of his or her own work and efforts. The first week that I did this, students did not take it seriously so I needed to re-teach the self-assessment and remind them that this goes back to our mindsets and we only grow as learners if we are honest about the efforts that we put forth during the week. After this conversation, I gave the students a new self-assessment and was surprised at how drastically different the findings were. The first time through students answered “always” to most of the questions which was not accurate. The next time through, students concentrated on the questions and accurately assessed their progress from the week. At the beginning of these weekly assessments, I was not seeing many “always” chosen for responses. The students saw that this self-assessment was going to be a weekly occurrence, which positively impacted students to work harder and participate more during the week so that they could honestly answer “always” on the end of the week self-assessment.

Figure 4.3 - Student Self-Assessment

Name _____

Reflection for _____

Directions: Circle *always*, *sometimes*, or *never* for each question.

- | | | | |
|---|---------------|------------------|--------------|
| 1. How often did I raise my hand to answer questions? | <i>Always</i> | <i>Sometimes</i> | <i>Never</i> |
| 2. How often did I understand math? | <i>Always</i> | <i>Sometimes</i> | <i>Never</i> |
| 3. How often did I understand reading? | <i>Always</i> | <i>Sometimes</i> | <i>Never</i> |
| 4. How often did I participate? | <i>Always</i> | <i>Sometimes</i> | <i>Never</i> |
| 5. How often did I feel PROUD of my work? | <i>Always</i> | <i>Sometimes</i> | <i>Never</i> |
| 6. How often did I feel PROUD of my effort? | <i>Always</i> | <i>Sometimes</i> | <i>Never</i> |
| 7. How often did I learn something? | <i>Always</i> | <i>Sometimes</i> | <i>Never</i> |

For the most part, students answered accurately on their self-assessments during the week and whether they were producing work that made them proud. Kaden's data was not the most accurate because he still rushed through the assessment and chose always for each question. I decided to intervene with Kaden and reflected on his week with him. During this conversation, Kaden and I discussed that it is ok if we do not have a perfect week at school and the only way to improve is to acknowledge the things that we struggle with. Kaden informed me that he is still struggling with participating in math without rolling his eyes and breathing heavy every time I cold call on him. Together, we set a goal for the following week. Kaden's goal was raise his hand twice during the math whole group lesson and answer a question without rolling his eyes. He taped the goal at his table spot and used it as a reminder the following week. I monitored Kaden closely

during the week of December 12 through December 16 and observed Kaden hold true on his goal only three of the five days. Although Kaden did not meet his goal 100% of the week, he was still making progress towards a growth mindset when it came to math. Kaden was motivated by the goal he set and was working hard to persevere through his inner struggles with math.

As the students became more focused on how their growth mindset positively affects their learning successes, the results of the self-assessments continued to improve. Although Angelina and Ashiya are two students that fall within the academically high student group, they both struggled with participating on their own accord. Due to this, they could not answer the self-assessment questions *always* when asked “How often did you participate?” The week of February 13 to February 17 was the first week that I noticed Angelina and Ashiya truthfully answered the participation question as *always*. I was proud that my students were developing a self-awareness of where they stood with their own growth mindset. Romell is another student that greatly benefited from these weekly self-assessments. During the entire month of February, I saw a shift in Romell’s attitude towards the work that he was producing. Romell showed me through neater work that he wanted to create work that he was proud of because he knew that it was part of maintaining a growth mindset — working hard and never giving up until the desired outcome is reached.

The final week of my research was March 27 through March 31. The students did not know that this was the last week I would track student progress. I was hoping to see the best results during the last week of monitored student self-assessments; however, it

was quite the opposite. Perhaps it was because it was the last week of PARCC testing, which was draining — academically and emotionally — on every student. Students were motivated to do well on the PARCC assessments because they knew that the assessments were important for our school and for their futures. The students used their growth mindsets to work hard and persevere through the assessments. After the rigorous assessment was over in the morning the students began to dwindle throughout the afternoon. Instead of focusing on this week's self-assessment scores, I had conversations with a Steven, Keyshia and Kaden about their perspective on how PARCC assessments went for each of them. Even though the PARCC results will not come out until next school year, I feel these discussions with students are important in answering my research question: *How can an individual's growth mindset be improved by using self-assessment techniques?*

Steven: First, I talked with Steven who falls in my academically low category with a fixed mindset. By the time the PARCC rolled around, Steven's attitude was shifting more towards the growth mindset end of the spectrum. Steven was a student that was reaching out for negative attention from anyone offering. He was in many fights, and had to go to the hospital twice for different accident related instances that occurred at school. Steven began to change his attitude, slowly, when I introduced the idea of fixed versus growth mindset. However, the biggest change for Steven was around the time of the winter MAP. When Steve saw his winter MAP scores in January, he was not pleased. In fact he was in tears because he wanted to do so much better and knew he was capable of much more than the scores he was seeing on the computer screen. From that point on,

Steven worked much harder to better his academic levels and grew incrementally as the year progressed. Steven started to see that school was an outlet for himself and an opportunity to better his own life. He was motivated by good grades, positive attention, and teacher feedback.

When asked how he did on the PARCC, Steven was gleaming with joy. He believed that he worked so incredibly hard and knew he worked as hard as he possibly could. Steven told me that he was “proud” of himself because he “never gave up and made sure to double check [my] work and prove my answers were the correct ones”. Shortly after this conversation and spring break, Steven’s parents decided to uproot him and transfer him to another school. Steven is a prime example of why it is important to instill a growth mindset in students at a young age, especially students that are part of a high risk population in an inner city Chicago school. He could easily fall into the same footsteps as so many other students growing up in high-poverty neighborhoods, joining gangs or getting into drugs. My hopes for Steven is that he will continue to work hard and persevere through each challenge he faces in order to reach his fullest potential, both in and out of school.

Keyshia: Next, I discussed the PARCC assessments with Keyshia, who was a student in the academically proficient student group with a growth mindset. Keyshia came from a stable and supportive home life, where a good education was a top priority. In preparation for the PARCC assessments, Keyshia worked hard through practice problems at school and at home with her parents. However, her mindset was put to the test when she actually faced the strenuous PARCC assessments. As I monitored Keyshia’s

body language during the assessment, I could see that she was struggling to work hard and persevere through the toughest third grade problems the PARCC had to offer. Once testing was over, I asked Keyshia how she felt about the assessments and if she was proud of the effort that she put forth. Keyshia took a little bit to think over each of my questions. Finally, Keyshia stated that she was fine with the level of effort she put forth on the PARCC assessments, but she was not proud. She also said, “Ms. Ryan, those tests were really hard and I know I will do much better next year since it is not new to me”. Although Keyshia falls among the students with a strong growth mindset, the PARCC assessments still had her questioning her own abilities. The conversation with Keyshia showed me the importance of fostering a growth mindset within all students because for even the most gifted students there will come a day where each student is faced with a challenge that they have to face head on with hard work and perseverance in order to overcome it.

Kaden: The final student I talked with was Kaden, who was part of the academically high student group with a fixed mindset. Before the PARCC assessments occurred, Kaden was hospitalized for severe third degree burns on his feet. He missed out on a majority of PARCC preparation and had to rely on his own growth mindset — hard work and perseverance — in order to do well on these rigorous assessments. The first thing Kaden said to me after his assessments were “Wow! Ms. Ryan those were tricky but I made sure to do my best and take my time. I think I did awesome.” Again, Kaden will not know his results until next year but he had such positive attitude about his efforts toward the PARCC assessments that I could not help but be proud of him. I was worried

that Kaden's time spent in the hospital was going to wear on his newfound growth mindset, but it seemed to only ignite it. Kaden was motivated to get back to school and finish the year strong.

These weekly self-assessments and the post PARCC discussions with Steven, Keyshia, and Kaden were incredibly beneficial to instilling a growth mindset within each of my students in the classroom. I focused mostly on the results of my students in my focus group, but as an entire class population, the students began to accurately self-assess their own effort and work in order to be proud of the end result.

Conclusion

This chapter discussed the findings of my research question: *How can an individual's growth mindset be improved by using self-assessment techniques?* in form of BAS and MAP data and the instructional design, which included lesson plans, total participation techniques, and student self-assessment. The beginning of this work involved the introduction of the concept, fixed versus growth mindset, and which mindset each of my students possessed. From there, I had to design my lessons in a way that incorporated the necessary total participation techniques that would foster a growth mindset within my students. From there, I monitored student progress and responses when they were faced with challenging content.

Chapter Five will reflect upon the learning gained through the completion of the literature review and the research process. It will explore the implications and limitations faced during the duration of the research, as well as important learnings. Finally, there will be consideration of future areas of study for growth mindset.

CHAPTER FIVE

Conclusions

Introduction

Throughout the development of this capstone, I attempted to answer the research question: *How can an individual's growth mindset be improved by using self-assessment techniques?* Chapters One and Two discuss my rationale behind why I chose my research question and the importance of fostering a growth mindset within our students at the elementary level. There was a review of current literature on fixed versus growth mindset, total participation techniques, and self-assessment that was used to drive the capstone project. I decided to create an instructional design that would meet the needs of the students in my classroom, while incorporating the necessary total participation techniques that would drive high levels of student engagement. Finally, I was able to use my knowledge to create an instructional design to support my students in developing a growth mindset while understanding the importance of hard work, perseverance, and self-assessment.

This chapter will synthesize major findings and how they relate to the research conducted around growth mindset, total participation techniques, student motivation, and self-assessment. Next, it will explore the implications and limitations of the project. Finally, there will be a reflection around the potential areas of future study.

Research Question

The goal of my capstone was see if my instructional techniques could foster a growth mindset within my students while using self-assessment techniques to increase student engagement and promote lifelong learners. As I mentioned earlier, I work in a charter school on the west side of Chicago where instilling a growth mindset is not an easy task. During the capstone process, I had twenty-eight students in my classroom who came from a wide variety of academic levels paired with unstable homes. My students easily fell into the fixed mindset because they did not come from a place where success was seen on a daily basis, rather they saw and felt that the odds were absolutely against them. My time at LEARN 7 Charter School motivated me to become a better educator and drive my instruction to instill a growth mindset within each of my students because they needed to know that there is a better life waiting for them. Success is achievable with hard work and perseverance.

When I received the Human Subject Committee approval in December and finally began research to answer my question *How can an individual's growth mindset be improved by using self-assessment techniques?* I had observed my twenty eight students for a solid four months, being that we started school on August 8. I had a grasp on the mindsets my students held and developed relationships with each of them. At the point of my HSC approval, the school-wide focus was to learn as much as possible, while still finding a way to survive until winter break. I had to challenge my own growth mindset to focus on my research question, implement total participation techniques into my daily lesson plans, and monitor student progress throughout my research. I quickly realized that my students were extremely capable of tackling any task presented; but they were not

used to having anyone believe that they could achieve success, which resulted in their own fixed mindset that success was not attainable. My students thrived from challenging tasks and became more engaged because they saw that Ms. Ryan believed in them.

During a time of year that usually signifies exhaustion, my students began to flourish and meet the high expectations that I set for them. I was beyond proud of my students, not just the nine in my focus group, but the entire group of twenty eight. After my research concluded, I realized that my students made tremendous growth in their attitudes towards school, engagement levels, and developed a much stronger work ethic. I know that I will continue to foster a growth mindset within my classroom by utilizing total participation techniques paired with self-assessment strategies.

Future Research Implications

During my research period, I wrote lesson plans that utilized many total participation techniques, formative assessments, and self-assessments to ensure that my students were highly engaged while actively participating. The total participation techniques encouraged individual accountability and high levels of discussion among students during instructional time. Formative assessments were placed within my lesson plans to monitor student understanding and catch misconceptions before the student was completely lost. Last, self-assessment encouraged students to reflect on their own learning and set goals for new learning. I really liked the self-assessment piece of my research because it led to great discussions among my students and me, while motivating students to grow as learners. I have never used a self-reflection piece in my previous years teaching and I am glad that I found it is quite beneficial to student progress. In the

future, I will kick off the school year teaching my students about mindsets and developing a classroom community around fostering a growth mindset among all of my learners.

Research Limitations

When I reflect upon my research process, I thought a lot about how my students developed as individuals. I realized that my capstone was successful and allowed me to deeply understand the development of an individual's growth mindset. I became aware that an individual's mindset can change on a daily basis depending on outside factors that one encounters. My students come from unstable homes, experiencing situations that eight and nine year olds should never witness. However, I expect them to come to school ready to learn each day, no matter what they went through outside of my four classroom walls. I have my students for about 190 school days and within those days, it is up to me to provide my students with the necessary skills and strategies to maintain a growth mindset in order to become life-long learners. Ideally, this would be a school-wide approach because we have a population filled with social-emotional high risk students, but I can only control my single classroom.

Future Areas of Study

This capstone process showed me that I have the power as an educator to impact the lives of many students that pass through my classroom doors by fostering a growth mindset in all of my students. A growth mindset is something that all students are capable of maintaining as long as they are willing to work hard and persevere through the challenges that they face inside and outside of the classroom. In the future, I would like to

research how student motivation leads to a growth mindset. More specifically, how is a student being motivated in order to achieve success? Is the student's motivation intrinsic or extrinsic? And, how does this motivation play part into a growth mindset? I feel that student motivation relates to the type of mindset an individual maintains. I also think it would be interesting to research how self-assessment impacts a student's motivation. Is a student encouraged to persevere if they realize their first attempt at something was unsuccessful, or will they give into a fixed mindset and give up?

One of the best parts of being an educator is having the ability to collaborate and share expertise across the board. I would also like to use what I learned in my research process to influence my colleagues because I truly believe that it will help other educators. I want to look into developing a school wide initiative of fixed versus growth mindset through implementing total participation techniques and self-assessment into each teacher's daily lesson plans. These two strategies are not something that can be touched on once in a while, rather used frequently to assist students in taking ownership for their own learning process. I want to take what I have learned during this research process and share it with my colleagues so that it can impact the students at LEARN 7 Charter School and help build life-long learners beyond the fifth grade.

Conclusion

My passion for teaching in diverse and underprivileged neighborhoods led me to learn more about growth mindset and the power it has to build life-long learners. The desire to show students that no matter where they come from, they always have the opportunity for a better future. The capstone process has encouraged me to grow as an

educator by allowing the opportunity to dive deeper into new concepts that my current school is working through — growth mindset and self-assessment. I asked myself the question: *How can an individual's growth mindset be improved by using self-assessment techniques?* and through this research process I learned that with the right techniques, each student is capable of hard work and perseverance to achieve success.

I ran across a quote by Angela Davis that is fitting to my future areas of study. Davis says, “I am no longer accepting the things I cannot change, I am changing the things I cannot accept.” Working in an urban school setting, all of my school’s students come from unstable backgrounds and would greatly benefit from constantly being reminded that there is a better life situation for each of these students, not just making it to high school and college, but equipping them with skills and strategies to overcome life’s obstacles outside of school. I no longer want to accept that these children come from unstable homes and believe that they are doomed. Rather, I want to change what I cannot accept and instill a growth mindset within all of my students to show them that with hard work and perseverance, they can reach and exceed their goals.

References

- Bercher, D. d. (2012). Self-Monitoring Tools and Student Academic Success: When Perception Matches Reality. *Journal Of College Science Teaching*, 41(5), 26-32.
- Brookhart, S., Moss, C., & Long, B. (2008). Formative Assessment That Empowers. *Educational Leadership*, 66(3), 52-57.
- Brookfield, S. D. (2015). The skillful teacher: On technique, trust, and responsiveness in the classroom (3rd ed.). San Francisco, California: John Wiley & Sons.
- Chan, P. E., Graham-Day, K. J., Ressa, V. A., Peters, M. T., & Konrad, M. (2014). Beyond Involvement: Promoting Student Ownership of Learning in Classrooms. *Intervention In School & Clinic*, 50(2), 105-113.
- Danielson, C. (2013). The 2013 framework for teaching evaluation instrument (2nd ed.). Princeton, New Jersey: Charlotte Danielson.
- Dweck, C. S. (2006). *Mindset: The new psychology of success*. New York: The Random House Publishing Group.
- Dweck, C. S. (2007). The Perils and Promises of Praise. *Educational Leadership*, 65(2), 34-39.

Dweck, C. S. (2007). Boosting Achievement With Messages That Motivate. *Education Canada*, 47(2), 6-10.

Dweck, C. S. (2008). *Brainology: Transforming Students' Motivation to Learn*. Independent School, 67(2), 110-119.

Dweck, C. (2014). Teachers' Mindsets: "Every Student has Something to Teach Me": Feeling overwhelmed? Where did your natural teaching talent go? Try pairing a growth mindset with reasonable goals, patience, and reflection instead. It's time .. *Educational Horizons*, 93(2), 10-15.

Fluckiger, J. j., Vigil, Y. y., Pasco, R., & Danielson, K. (2010). *Formative Feedback: Involving Students as Partners in Assessment to Enhance Learning*. *College Teaching*, 58(4), 136-140

Goodwin, B. g., & Miller, K. k. (2012). Good Feedback Is Targeted, Specific, Timely. *Educational Leadership*, 70(1), 82-83.

Haager, J. S., Kuhbandner, C., & Pekrun, R. (2014). Overcoming fixed mindsets: The role of affect. *Cognition & Emotion*, 28(4), 756-767. doi: 10.1080/02699931.2013.851645

- Himmele, W. W., & Himmele, P. P. (2012). How to Know What Students Know. *Educational Leadership*, 70(1), 58-62.
- Jacobson, M. m. (2013). Afraid of Looking Dumb. *Educational Leadership*, 71(1), 40-43.
- Kuba, R. (2015). Beliefs and qualities of families of low -socioeconomic status that promote student success in school. (Order No. 3717190, University of Hawai'i at Manoa). ProQuest Dissertations and Theses, , 112. Retrieved from <http://search.proquest.com/docview/1714094375?accountid=28109>
- Masters, G. N. (2014). Towards a growth mindset in assessment. *Practically Primary*, 19(2), 4 - 7.
- McMillan, J. H., & Hearn, J. (2009). STUDENT SELF-ASSESSMENT. *Education Digest*, 74(8), 39-44.
- Saphier, J., Haley-Speca, M. A., & Gower, R. (2008). The skillful teacher: Building your teaching skills (6th ed.). Acton, Maryland: Research for Better Teaching.
- Sevincer, A. T., Kluge, L., & Oettingen, G. (2014). Implicit theories and motivational focus: Desired future versus present reality. *Motivation And Emotion*, 38(1), 36-46. doi:10.1007/s11031-013-9359-0

Tough, P. (2012). How children succeed. Boston and New York: Houghton Mifflin
Harcourt.